Job No.: SAID-BBMP-KAM-W.No.11-2019-20 Date: 13.03.2019

TEST REPORT

CLIENT	:	**Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.
AGENCY	:	**Sri. K. Achuta Murthy,** Contractor, Bangalore.
NAME OF THE WORK	:	Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.
REFERENCE	:	EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part -5)	175 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	410 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	28.50 %	-

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⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 15 days from the date of testing.

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SAMRUDH
Architects and Interior Designers

Job No.: SAID-BBMP-KAM-W.No.11-2019-20

Date 13.03.2019

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.

Agency : **Sri. K. Achuta Murthy,** Contractor, Bangalore.

Name of Work : Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.

Reference : EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019

Date of Testing : 13.03.2019

Material : Sand

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	42	4.20	4.20	95.8	90-100
2.36	143	14.30	18.50	81.5	75-100
1.18	198	19.80	38.30	61.7	55-90
600 Micron	216	21.60	59.90	40.1	35-59
300 Micron	226	22.60	82.50	17.5	8-30
150 Micron	132	13.20	95.70	4.3	0-10

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Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

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SAMRUDH
Architects and Interior Designers

Job No.: SAID-BBMP-KAM-W.No.11-2019-20 Date 13.03.2019

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.

Agency : **Sri. K. Achuta Murthy,** Contractor, Bangalore.

Name of Work : Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.

Reference : EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019

Date of Testing : 13.03.2019

Material : 20mm Aggregates

Executive Engineer Project Division Yelahanka Zone Bangalore

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	118	2.4	2.4	97.6	95-100
10	2894	57.9	60.2	39.8	25-55
4.75	1712	34.2	94.5	5.5	0-10

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SAMRUDH
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Job No.: SAID-BBMP-KAM-W.No.11-2019-20 Date 13.03.2019

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.

Agency : **Sri. K. Achuta Murthy,** Contractor, Bangalore.

Name of Work : Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.

Reference : EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019

Date of Testing : 13.03.2019

Material : 40mm Aggregates

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

Total Wt. of Aggregates in gms **15000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	237	1.58	1.58	98.42	95-100
20	8753	58.35	59.93	40.07	30-70
10	3389	22.59	82.53	17.47	10-35
4.75	2262	15.08	97.61	2.39	0-5

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Job No.: SAID-BBMP-KAM-W.No.11-2019-20 30.03.2019

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.

Agency : **Sri. K. Achuta Murthy,** Contractor, Bangalore.

Name of the Work : Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.

Reference : EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019

Size of Blocks : 400mm x 150mm x 200mm

Gross Sectional Area : 60000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 03

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

Sl.No.	Date of Samping	Date of testing	Failure load (KN)	Compressive strength	Minimum required Compressive Strength of Individual Units
			kN	(N/mm^2)	(N/mm^2)
1	28.03.2019	30.03.2019	213.5	3.56	3.5
2	28.03.2019	30.03.2019	225.3	3.76	
3	28.03.2019	30.03.2019	219.7	3.66	

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Architects and Interior Designers

Job No.: SAID-BBMP-KAM-W.No.11-2019-20

11.04.2019

CEMENT CONCRETE CORE (PRECAST SLAB) TEST REPORT

Client	:	**Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.
Agency	:	**Sri. K. Achuta Murthy,** Contractor, Bangalore.
Name of work	:	Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.
Reference	:	EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019
Technical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Precast Slab (100mm thick)
Date of Testing	:	11.04.2019

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	77.00	0.381	2520.02	1.54	0.960	24.5	12.48	13.48	12.94	16.18
2	50.00	78.00	0.390	2546.48	1.56	0.960	25.6	13.05	14.10	13.53	16.92
3	50.00	79.00	0.402	2591.61	1.58	0.960	26.7	13.62	14.71	14.12	17.65

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E-mail:klsuguna7@gmail.com .www.ezdihaar.com

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Job No.: SAID-BBMP-KAM-W.No.11-2019-20 Date: 02.04.2019

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.

Agency : **Sri. K. Achuta Murthy,** Contractor, Bangalore.

Name of the work : Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.

Reference : EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019

Sample ID : Flagging Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 7th day

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	26.03.2019	02.04.2019	8.254	267.8	11.90
2	26.03.2019	02.04.2019	8.326	275.9	12.26
3	26.03.2019	02.04.2019	8.187	252.6	11.23

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E-mail:klsuguna7@gmail.com .www.ezdihaar.com

SAMRUDH
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Job No.: SAID-BBMP-KAM-W.No.11-2019-20 Date: 23.04.2019

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.

Agency : **Sri. K. Achuta Murthy,** Contractor, Bangalore.

Name of the work : Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.

Reference : EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019

Sample ID : Flagging Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	26.03.2019	23.04.2019	8.128	368.9	16.40
2	26.03.2019	23.04.2019	8.362	399.6	17.76
3	26.03.2019	23.04.2019	8.247	381.4	16.95

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Job No.: SAID-BBMP-KAM-W.No.11-2019-20 Date: 04.04.2019

TEST REPORT ON CONCRETE CUBES

Client	: **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.
Agency	: **Sri. K. Achuta Murthy,** Contractor, Bangalore.
Name of the work	: Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.
Reference	: EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019
Sample ID	: Flagging Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{15}
Compressive Strength as on	: 7th day

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.03.2019	04.04.2019	8.098	248.6	11.05
2	28.03.2019	04.04.2019	8.161	259.5	11.53
3	28.03.2019	04.04.2019	8.278	271.7	12.08

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E-mail:klsuguna7@gmail.com .www.ezdihaar.com

Job No.: SAID-BBMP-KAM-W.No.11-2019-20 Date: 25.04.2019

TEST REPORT ON CONCRETE CUBES

Client	: **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.
Agency	: **Sri. K. Achuta Murthy,** Contractor, Bangalore.
Name of the work	: Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.
Reference	: EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019
Sample ID	: Flagging Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{15}
Compressive Strength as on	: 28th day

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.03.2019	25.04.2019	8.289	372.8	16.57
2	28.03.2019	25.04.2019	8.347	386.9	17.20
3	28.03.2019	25.04.2019	8.186	361.4	16.06

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SAMRUDH
Architects and Interior Designers

Job No.: SAID-BBMP-KAM-W.No.11-2019-20 Date: 16.04.2019

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.

Agency : **Sri. K. Achuta Murthy,** Contractor, Bangalore.

Name of the work : Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.

Reference : EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019

Sample ID : Coping Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	09.04.2019	16.04.2019	8.159	254.3	11.30
2	09.04.2019	16.04.2019	8.231	262.8	11.68
3	09.04.2019	16.04.2019	8.328	275.8	12.26

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Job No.: SAID-BBMP-KAM-W.No.11-2019-20 Date: 07.05.2019

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer,** Project Division, Yelahanka Zone, BBMP, Bangalore.

Agency : **Sri. K. Achuta Murthy,** Contractor, Bangalore.

Name of the work : Improvements to Roads and Drains around Ramachandrapura, Kuvempunagara, Vaishnavi Layout, Srinidhi Layout and Sai Garden in Ward No. 11, Kuvempunagara, BBMP, Bangalore.

Executive Engineer Project Division Yelahanka Zone Bangalore

Reference : EE/P-YNK/WO/117/2018-19 Dated: 08.03.2019

Sample ID : Coping Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	09.04.2019	07.05.2019	8.376	392.8	17.46
2	09.04.2019	07.05.2019	8.192	368.4	16.37
3	09.04.2019	07.05.2019	8.251	380.9	16.93

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